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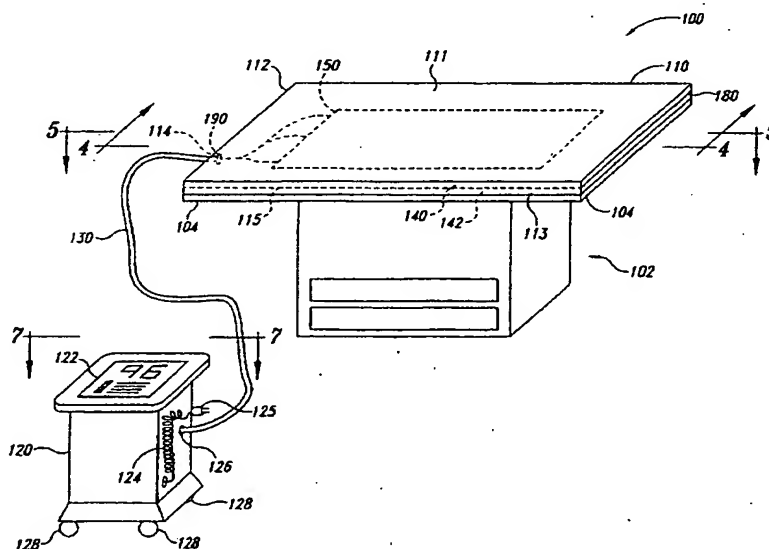
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(54) Title: HEATING PAD SYSTEMS FOR PATIENT WARMING



(57) Abstract: A heating pad system (100) useable in one embodiment for warming a person on a support structure. In this embodiment, the heating pad system comprises an upper foam pad (140), a lower foam pad (142), and a thermal-electric heating element (150) sandwiched between the upper and lower foam pads. A form-fitting waterproof cover (112) encloses at least a portion of the upper and lower foam pads and the thermal-electric heating element. In one aspect of this embodiment, the heating pad system includes a power unit (120) for providing electrical power to the thermal-electric heating element, the power unit including a control panel (122) having at least one temperature selector, the temperature selector for selecting at least one heating pad temperature.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/18927

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 A61F7/00 A61F7/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 006 136 A (GLUCKSMAN DOV) 21 December 1999 (1999-12-21)	1-3, 6-11, 17, 18, 23, 24, 26, 27, 34, 35, 41, 44, 54, 55, 60-63
Y	column 3, line 1 - line 20	4, 5, 19-22, 46, 47
A	column 5, line 10 - line 48; figures 1, 2A --- -/--	40

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

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International Application No

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## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 757 907 A (TEIKOKU HORMONE MFG CO LTD) 12 February 1997 (1997-02-12)  column 6, line 53 - column 7, line 30 column 17, line 51 - column 18, line 2; figure 12B  ---	4, 5, 19-22, 46, 47
A	US 5 932 129 A (HYATT GARY F) 3 August 1999 (1999-08-03) column 3, line 12 - line 16; figure 2  -----	1, 6, 34, 54, 60

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/18927

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-11, 17-24, 26, 27, 34, 35, 40, 41, 44, 46, 47, 54, 55, 60-63

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-11,17-24,26,27,34,35,40,41,44,46,47,54,55,60-63

heating pad system with carbon filled heating element sandwiched between two foam layers including a temperature display

2. Claim : 12

heating pad system with second heating element and pair of foam layers

3. Claims: 13-16,45,59

heating pad system with heating element sleeve

4. Claims: 25,48,56-58

heating pad system with upper foam layer being denser than lower one

5. Claims: 28,29

heating pad system with alternating pressure pad

6. Claims: 30-33

heating pad system with auxiliary sensors

7. Claims: 36-39

heating pad system with second control panel

8. Claims: 42,43

heating pad system with 12V-DC power connection

9. Claims: 49-53

heating pad system with power loss indicator

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT, S 01/18927

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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